

# SPECIAL RESEARCH SEMINAR

Presented by the Center for Human Neuroscience Research at the Fralin Biomedical Research Institute at VTC



FRALIN BIOMEDICAL RESEARCH INSTITUTE AT VTC  
CENTER FOR HUMAN  
NEUROSCIENCE RESEARCH  
VIRGINIA TECH.



**GENE BREWER, Ph.D.**

Professor  
Department of Psychology  
Arizona State University

## *In Person Seminar: Prioritization of Episodic Representations During Memory Encoding*

Presumably because of capacity limits, some events are prioritized over others for encoding into long-term memory. Preferential encoding of memories based on reward value is thought to depend on dopaminergic (DA) inputs to the hippocampus from the ventral tegmental area (VTA). Dr. Brewer's research has contributed to a body of research developing behavioral paradigms to quantify value-directed remembering (VDR) at the individual participant level. Stable individual differences exist in value-based prioritization, and reward value selectively enhances recollection of stimuli with associated source content. Determining whether these memory benefits depend on modulatory effects of DA has depended on indirect tests using EEG or MRI. Both methods have contributed to an established set of empirical tools and results consistent with a role for DA in modulating hippocampal responses that underlie prioritized encoding of rewarding events. However, proving that DAergic inputs underlie value-based prioritization of memory in people requires direct recording of dopamine in the hippocampus, which has not yet been achieved. In this talk, Dr. Brewer will discuss his team's prior and current research aimed at addressing this gap in the literature.

**TUESDAY, AUG. 22, 2023 at 11 a.m.**

Room 1102, 4 Riverside Circle  
Or watch via Zoom: <https://virginiatech.zoom.us/j/83353486445>



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